



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,066	12/03/2001	Julie Anna Symons	10015520	9441
7590	04/20/2005		EXAMINER	
HEWLETT-PACKARD COMPANY Intellectual Property Administration P.O. Box 272400 Fort Collins, CO 80527-2400			TRAN, NGHI V	
			ART UNIT	PAPER NUMBER
			2151	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/005,066	SYMONS ET AL.
	Examiner	Art Unit
	Nghi V. Tran	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 December 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-34 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

<ol style="list-style-type: none"> 1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ 	<ol style="list-style-type: none"> 4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6)<input type="checkbox"/> Other: _____.
---	--

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Sherer et al., U.S. Patent No. 6,115,376 (hereinafter Sherer).

4. With respect to claim 1, Sherer teaches a method of managing a network [see abstract and figs. 1-4], said method comprising:

- a) receiving a packet at a first port in said network [col.2, Ins.54-65], wherein;
- b) determining if an address associated with said packet is authorized [i.e. authenticated] for said first port [col.4, Ins.36-59]; and
- c) forwarding said packet if said address is authorized [col.2, ln.54 - col.3, ln.54].

5. With respect to claim 2, Sherer further teaches d) dropping [i.e. discarded] said packet if said address is not authorized [col.4, Ins.59-60].

6. With respect to claim 3, Sherer further teaches receiving said packet from a device coupled to said first port [col.5, Ins.4-20], said first port being a switch port [10 of fig.1], and wherein there is a one-to-one mapping between ports of devices in said network and ports of switches in said network [col.5, Ins.20-32].

7. With respect to claim 4, Sherer further teaches forwarding said packet to a device if said address is authorized for said first port, said first port coupled to said device, and wherein said network comprises a virtually-wired switching fabric [col.7, Ins.60-65].

8. With respect to claim 10, Sherer further teaches comprising: d) determining changes in physical topology of said network [col.7, Ins.2-32].

9. With respect to claim 11, Sherer further teaches wherein d) comprises comparing a physical description of said network with a stored physical description of said network [col.7, Ins.34-65].

10. With respect to claim 12, Sherer further teaches said address is a media access control (MAC) address [col.7, Ins.27-51].

11. Claims 31-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Holloway et al., U.S. Patent No. 5,905,859 (hereinafter Holloway).

12. With respect to claim 31, Holloway teaches a network comprising: a plurality switches [fig.1 i.e. router, hub, bridge]; said switches interconnected and configured to control communication between a plurality of devices [i.e. workstation, filer server] coupled to said network [fig.1]; and a first switch of said plurality configured to detect a packet having an unauthorized media access control (MAC) address [col.2, ln.50 – col.3, ln.60].

13. With respect to claim 32, Holloway further teaches said first switch is further configured to forward said packet if said address is authorized [col.7, Ins.4-48].

14. With respect to claim 33, Holloway further teaches said first switch is further configured to drop said packet if said address is not authorized [col.3, Ins.1-10].

15. With respect to claim 34, Holloway further teaches there is a one-to-one mapping between ports of said switches and ports of said devices [col.7, Ins.4-10].

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherer as applied to claim 1 above, and further in view of Burgess et al., U.S. Patent Application Publication No. 2001/0012296 (hereinafter Burgess).

18. With respect to claim 5, Sherer is silent on step d) comparing a set of learned addresses against a set of expected addresses, said learned addresses comprising addresses associated with packets received at a second port, said expected addresses derived from an expected configuration of said network.

In a method of managing a network, Burgess discloses the step d) comparing a set of learned addresses against a set of expected addresses, said learned addresses comprising addresses associated with packets received at a second port [i.e. blocked],

said expected addresses derived from an expected configuration of said network [figs.1-6 and paragraphs 0047-0059].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Sherer in view of Burgess by comparing a set of learned addresses against a set of expected address because this feature provides security against unauthorized or undesirable access to a network [Burgess, paragraph 0007]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Sherer in view of Burgess in order to inhibit the sending or reception of messages by an intruder except to specified devices in the network [Burgess, paragraph 0011].

19. With respect to claim 6, Sherer further teaches said second port couples two switches in a virtually-wired switching fabric [col.7, Ins.60-65].

29. With respect to claim 7, Sherer further teaches e) tracing a topology [i.e. monitoring the link] of said network to find a third port where an unexpected address [i.e. disconnected from the port] entered said virtually-wired switching fabric [col.6, Ins.57-65 and col.7, Ins.60-65].

21. With respect to claim 8, Sherer further teaches f) taking corrective action [i.e. auto-negotiation protocol] at said third port, said third port coupled to a device [col.6, Ins.45-57].

22. With respect to claim 9, Sherer further teaches disabling [i.e. unauthenticated or deleted from the table] said third port [col.6, Ins.57-65].

23. Claims 13-18 and 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherer et al., U.S. Patent No. 6,115,376 (hereinafter Sherer), in view of Burgess et al., U.S. Patent Application Publication No. 2001/0012296 (hereinafter Burgess).

24. With respect to claims 13 and 22, Sherer teaches computer-readable medium having stored thereon a program, which when run on a processor, performs a method of managing a network [see abstract and figs.1-4], said method comprising:

a) comparing addresses associated with packets received at a first port in said network with expected addresses for said first port to determine unexpected addresses [col.4, ln.36 – col.5, ln.31]; and

However, Sherer is silent on step b) locating a second port in said network that is a source of an unexpected address if said unexpected address is detected.

In a method of managing a network, Burgess discloses the step b) locating a second port [i.e. blocked] in said network that is a source of an unexpected address if said unexpected address is detected [figs.1-6 and paragraphs 0047-0059].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Sherer in view of Burgess by comparing a set

of learned addresses against a set of expected address because this feature provides security against unauthorized or undesirable access to a network [Burgess, paragraph 0007]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Sherer in view of Burgess in order to inhibit the sending or reception of messages by an intruder except to specified devices in the network [Burgess, paragraph 0011].

25. With respect to claim 14, Sherer further teaches said network is a virtually-wired switching [10] network and said first port couples switches [16 i.e. internet or intranet] in said network and said second port is coupled to a host device [11-15 i.e. end station] [fig.1].

26. With respect to claims 15 and 23, Sherer further teaches the step b) of said method comprises tracing a topology [i.e. monitoring the link] of said network to determine said second port, wherein said network comprises a virtually-wired switching fabric and said second port is at the edge of said fabric [col.6, Ins.57-65 and col.7, Ins.60-65].

27. With respect to claim 16, Sherer further teaches said method further comprises: c) taking corrective action [i.e. auto-negotiation protocol] at said second port, wherein said second port is coupled to a host device [col.6, Ins.45-65].

28. With respect to claims 17 and 24, Sherer is silent on disabling said second port, wherein said network is a virtually-wired switching fabric and said second port is at the edge of said fabric.

In a method of managing a network, Burgess discloses further teaches said method further comprises: c) disabling [i.e. blocked] said second port, wherein said network is a virtually-wired switching fabric and said second port is at the edge of said fabric [paragraphs 0047-0059].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Sherer in view of Burgess by disabling said second port because this feature provides security against unauthorized or undesirable access to a network [Burgess, paragraph 0007]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Sherer in view of Burgess in order to inhibit the sending or reception of messages by an intruder except to specified devices in the network [Burgess, paragraph 0011].

29. With respect to claims 18 and 26, Sherer is silent on reading a bridge table.

In a method of managing a network, Burgess discloses reading a bridge table [i.e. forwarding table] to determine learned addresses at said first port [figs. 1, 3, and 5].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Sherer in view of Burgess by reading a bridge table because this feature provides security against unauthorized or undesirable access to a network [Burgess, paragraph 0007]. It is for this reason that one of ordinary skill in

the art at the time of the invention would have been motivated to modify Sherer in view of Burgess in order to inhibit the sending or reception of messages by an intruder except to specified devices in the network [Burgess, paragraph 0011].

30. With respect to claim 20, Sherer further teaches said method further comprises:

c) determining changes in physical topology of said network [col.7, Ins.2-32].

31. With respect to claim 21, c) of said method comprises comparing a physical description of said network with a stored physical description of said network [col.7, Ins.34-65].

32. With respect to claim 25, Sherer further teaches the step d) dropping [i.e. discarded] said packet if said address is not authorized [col.4, Ins.59-60].

33. With respect to claim 27, Sherer further teaches the step b) further comprises forwarding said packet to a host device if said address is authorized for said first port, said first port coupled to said host device [col.7, Ins.60-65].

34. With respect to claim 28, Sherer further teaches the step d) determining changes in physical topology of said network [col.7, Ins.2-32].

35. With respect to claim 29, Sherer further teaches the step d) comprises comparing a physical description of said network with a stored physical description of said network [col.7, Ins.34-65].

36. With respect to claim 30, Sherer further teaches said address is a media access control (MAC) address and wherein said network comprises a virtually-wired switching fabric [col.7, Ins.27-51].

37. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over both Sherer and Burgess as applied to claim 13 above, and further in view of Legal Precedent.

38. With respect to claim 19, both Sherer and Burgess teach a switch. However, both Sherer and Burgess are silent on a plurality of switches. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify both Sherer and Burgess, and further in view of Legal Precedent by adding the limitation "multiple" because the limitation "multiple" is disclosed by *In re Harza* (Legal Precedent for duplication), 24 F.2d 669, 124 USPQ 378, 380 (CCPA 1960) which states "It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced". See MPEP 2144.04 (VI)(B). In this claim, duplicating the part does not produce any new result and does not produce any unexpected result.

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. "Managed network device security method and apparatus," by Holloway et al., U.S. Patent No. 5,905,859.
- b. "Parallel intrusion detection sensor with load balancing for high speed networks," by Shanklin et al., U.S. Patent No. 6,578,147.
- c. "Synchronizing service instruction among forwarding agent using a service manager," by Albert et al., U.S. Patent No. 6,606,315.
- d. "Method and apparatus for preventing unauthorized access by a network device," by Blumenau et al., U.S. Patent Application Publication No. 2002/0083339.
- e. "Rule based IP data processing," by Kloth, U.S. Patent No. 6,598,034.
- f. "Network device with unified management," by Whitmire et al., U.S. Patent No. 6,243,756.

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi V Tran
Patent Examiner
Art Unit 2151

NT



ZARNI MAUNG
SUPERVISORY PATENT EXAMINER